AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning on page 1, line 27 as follows:

Conventional magnetic recording media ~~using~~ which use light have mainly been what is known as optical modulation recording systems, in which information that has been recorded by adding a stationary magnetic field is erased, after which new information is recorded by adding a stationary magnetic field in the opposite direction. More recently, however, attention has shifted to magnetic field modulation systems because they make possible recording in a single rotation (direct overwrite) and allow accurate recording even at high density levels. Also, phase-change optical recording media have been gaining popularity because they afford direct overwrite by employing optical modulation recording and allow reproduction with the same optical system as a CD or DVD.

Please amend the paragraphs beginning on page 2, lines 4-16 as follows:

The recording density limit of an optical recording medium is determined by the laser wavelength (λ) of the light source, and is a function of the diffraction limit ($\approx \lambda/(2NA)$; where NA is the numerical aperture of the objective lens). In recent years a system has been proposed in which a NA of 0.8 or higher is attained by using a set of two objective lenses, and these systems have undergone considerable development. The laser used for recording and reproduction is directed through the substrate at a recording film that includes a recording layer, but as the NA increases, aberration caused by tilt of the substrate and so forth increases when light passes through the substrate, so the substrate has to be made thinner. In this case, a substrate such as with thickness of 0.5 mm or less is hard ~~enough to be kept~~to keep in a correct position during manufacturing the medium, so a method for recording and reproducing through a

protection coating over a thin film is proposed when using a system including the objective lens of high NA (see Non-Patent Document 1).

Furthermore, ~~for example,~~ a technique to improve reproduction resolution by irradiating ~~light~~ a light beam from a film surface, increasing NA of the objective ~~lens~~ lens, and using near-field light is known (see Patent Document 1). The technique enables to improve detection resolution more than the method that the light beam enters through the substrate. Also, since aberration of light beam caused by tilt of the substrate and so forth is not affected, good reproducing signals can be obtained even at high density recording.

Please amend the paragraphs beginning on page 2, line 27-32 as follows:

Even when the above-mentioned conventional optical head of high NA is used, however, detection resolution has its limit ~~depends~~ depending on light wavelength and NA. Also, in a recording and reproducing method using a magnetic head such as a GMR head and applying light, if the temperature of the recording medium rises, then the temperature of the lubricating layer for sliding the magnetic head also rises, and the sliding characteristics change and reliabilities deteriorate.

The object of the present invention is to provide a magnetic recording medium ~~that~~ in which recording and reproducing is performed with temperature rise of a recording film by applying a light and which has excellent signal the characteristics and heat endurance by improving characteristics of a lubricating layer.

Please amend the paragraph beginning on page 3, line 8 as follows:

As a result, a magnetic recording medium with excellent signal characteristics can be obtained that is ~~possible to block~~capable of blocking a thermal effect over the lubricating layer due to temperature rise of the recording layer, and to prevent temperature rise of a magnetic head for recording and reproducing.

Please amend the paragraph beginning on page 7, line 3 as follows:

~~NUMERICAL REFERENCE~~

~~10, 20, 30, 40, 50, 60 magnetic recording medium~~

~~11, 21, 31, 41, 51, 61 disk substrate~~

~~32, 52, 62 heat-radiating layer~~

~~53 heat-resistant layer~~

~~22, 42 dielectric layer~~

~~63 under heat-blocking layer~~

~~12, 23, 33, 43, 54, 64 recording film~~

~~13, 24, 34, 44, 55, 65 protective layer~~

~~14 lubricating layer~~

~~25, 35, 45, 56, 66 first lubricating layer~~

~~26, 36, 46, 57, 67 second lubricating layer~~

~~15, 68 etching surface~~

~~70 vacuum transport chamber~~

~~71 vacuum degassing chamber~~

~~72 loading and unloading chamber~~

~~73 vacuum main chamber~~

~~74 loading chamber~~

~~75 unloading chamber~~

~~77 heating chamber~~

~~81-87 vacuum processing chamber~~

~~101 recording layer~~

~~102 intermediate layer~~

~~103 reproducing layer~~

~~112 magnetic head~~

~~113 spindle motor~~

~~114 optical head~~

~~115 laser drive circuit~~

~~116 control and detection circuit~~

~~117 motor drive and control circuit~~

~~118, 119, 120, 121 optical element~~

Please amend the paragraph beginning on page 37, line 8 as follows:

~~With~~ In the magnetic recording medium of the present invention and its manufacturing ~~method pertaining to the present invention~~method, a lubricating layer is formed over a recording film formed on a disk substrate, with a protective layer having a lower thermal conductivity than the recording film interposed between the lubricating layer and the recording film, which is useful in rewritable magnetic recording media, and particularly in magnetic recording media that record and reproduce signals while the temperature of the recording medium is raised by irradiation with light, and other such media. Also, this constitution can be applied as a method for recording and reproduction to and from a magnetic recording medium, for example.